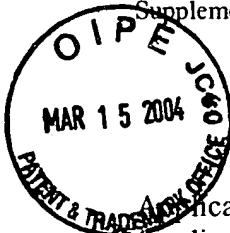


AF/2700



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application. No. : 09/707,647  
Applicant : Kim Y. Kao  
Filed : 11/07/2000  
TC/A.U. : 2182  
Examiner : Tammara R. Peyton  
  
Docket No. : 006045.P002XD2  
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Commissioner for Patents  
PO Box 1450  
Alexandria VA 22313-1450

SUPPLEMENTAL APPEAL BRIEF

Assistant Commissioner for Patents  
Washington, DC 20231-9999

Dear Sir:

Appellant submits, in triplicate, the following Supplemental Appeal Brief pursuant to 37 C.F.R. § 1.192 for consideration by the Board of Patent Appeals and Interferences. Please charge any fees or credit any overpayment to our Deposit Account No. 02-2666.

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I. REAL PARTY IN INTEREST

The real party in interest is an individual, Kim Y. Kao (hereinafter referred to as "Appellant").

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences known to Appellant or Appellant's legal representative, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 13-21 and 23-40 of the above-identified application (hereinafter referred to as the "Application") are pending and remain rejected. Appellant submits herewith an Amendment and Response canceling claims 23-24 and placing claim 25 into independent form.

IV. STATUS OF AMENDMENTS

Appellant is appealing a Final Office Action issued by the Examiner on February 4, 2003. On November 24, 2002, Appellant filed an amendment in response to an Office Action issued by the Examiner on July 24, 2002. In the amendment, Appellant traversed the rejections under 35 U.S.C. §§102(e) and 103 (a) as set forth in the Office Action. In response to the Amendment, a Final Office Action was mailed on February 4, 2003 in which the Examiner summarily dismissed the arguments and claim amendments presented therein. As a result, a Notice of Appeal was filed on June 4, 2003. In accordance with MPEP §1207, an amendment is being filed concurrently herewith under separate cover. This amendment cancels claims 22-23. Claim

25 has been placed into independent form to include limitations of Claim 23 and Claim 28 has been amended to depend on claim 25.

V. SUMMARY OF INVENTION

One embodiment of the invention discloses an apparatus and method for monitoring the status of an electrically powered device. Such monitoring is accomplished by comparing a digital output from an electrically powered device (320) with power [usage] profiles from a stored database of power profiles for such device (320).<sup>1</sup> As set forth in claim 1, the digital output may be obtained from an analog-to-digital (A/D) converter (316), which is coupled to the device (320) as shown in Figure 11.<sup>2</sup> The A/D converter (316) is deployed within the switch box (68).<sup>3</sup> The switch box (68) is communicatively coupled to a touch-screen controller (50) as illustrated in Figure 11.<sup>4</sup>

As further set forth in claim 1, the database of power profiles is stored within memory of the controller (50). As more specifically set forth in claim 25, the database of power profiles features power profiles directed toward regular operations, abnormal conditions or catastrophic events.<sup>5</sup> As described in the specification, a “power profile” is a recordation of power utilization.<sup>6</sup> For another embodiment of the invention, the power profiles may be measured as a function of amperage and time as set forth in claims 26, 27, 32 and 38 and shown in Figure 12.<sup>7</sup>

In general, the method involves two modes of operation; namely a learning mode and an operating mode.<sup>8</sup> During the learning mode, the controller establishes a power profile for a selected device.<sup>9</sup> During the operating mode, however, power usage is monitored and compared with the stored power profile of the device.<sup>10</sup> Based on the comparison of stored power profiles

<sup>1</sup> See page 22, lines 4-13 of the Specification.

<sup>2</sup> See page 21, lines 21-22; page 22, lines 10-14; Figure 11 of the Specification.

<sup>3</sup> See page 22, lines 9-11; Figure 11 of the Specification.

<sup>4</sup> See page 21, lines 13-14; Figure 11 of the Specification.

<sup>5</sup> See page 22, lines 7-9; page 24, lines 16-19 of the Specification.

<sup>6</sup> See page 23, lines 23-25 of the Specification.

<sup>7</sup> See page 24, lines 15-16 of the Specification.

<sup>8</sup> See page 24, line 10 to Page 25, line 22 of the Specification.

<sup>9</sup> See page 23, lines 14-21; page 24, lines 12-15 of the Specification.

<sup>10</sup> See page 25, lines 7-9 of the Specification.

to the monitored power profile of the electrically powered device, the process suspends a charge for usage, namely adjusts a billing charge, when the electrically powered device is detected to be in an abnormal condition or a catastrophic condition has occurred.<sup>11</sup>

VI. ISSUE

The issue is whether (1) claims 13-21 are unpatentable over Janku (U.S. Patent No. 4,902,881) in view of Ozawa (U.S. Patent No. 5,265,153) and Greene (U.S. Patent No. 4,312,035); and (2) claims 25-40 are unpatentable over Ozawa in view of Greene. It is noted that paragraph 1 of the Final Office Action does not explicitly state that claim 13 is rejected; however, it appears to be a typographical error because paragraph 7 of the Office Action refers to claim 13.

VII. GROUPING OF CLAIMS

Appellant contends that the claims of the invention do not stand or fall together. In particular, the following groups of claims are separately patentable:

Group 1: Claims 13-21, 25, 29-31, 33-37 and 39-40 stand together.

Group 2: Claim 26-27, 32 and 38 stand together.

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<sup>11</sup> See page 25, lines 10-17 of the Specification.

### VIII. ARGUMENTS

As set forth on paragraphs 1, 9 and 11 of the Final Office Action, claims 13-21 and 23-40 have been rejected as being unpatentable based on the teachings of Janku (U.S. Patent No. 4,902,881), Ozawa (U.S. Patent No. 5,265,153) and/or Greene (U.S. Patent No. 4,312,035). To support the conclusion that the claimed invention is rendered obvious, the Federal Circuit has held that the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Applicant's disclosure. See In re Vaeck, 947 F.2d. 488, 20 U.S.P.Q. 2d 1438, 1442 (Fed. Cir. 1991). Likewise, the Board has held that the claimed invention is directed to obvious subject matter if either the references expressly or implicitly suggest the claimed invention, or a convincing line of reasoning is presented by the Examiner as to why an artisan would have found the claimed invention to have been obvious in light of the teachings of the cited references. See Ex parte Clapp, 227 U.S.P.Q. 972, 973. (Bd. Pat. App. & Inter. 1985).

#### A. CLAIMS 13-21, 23-25, 28-31, 33-37 AND 39-40 ARE ALLOWABLE

Claims 13-21 were rejected by the Examiner under 35 USC §103(a) as being unpatentable over Janku in view of Ozawa and Greene. In addition, claims 25, 29-31, 33-37 and 39-40 were rejected under 35 USC § 103(a) as being unpatentable over Ozawa in view of Greene. Appellant respectfully disagrees with these rejections and submits that the Examiner has not presented a *prima facie* case of obviousness.

As the Examiner is aware, when evaluating a claim for determining obviousness, all limitations of the claim must be evaluated.<sup>12</sup> The absence of explicit reference to a limitation cannot be construed as an affirmative statement that the limitation is in the reference.<sup>13</sup>

<sup>12</sup> See In re Fine, 873, F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

<sup>13</sup> See In re Evanega, 829, F.2d 1110, 4 U.S.P.Q.2d 1249 (Fed. Cir. 1987).

Appellant respectfully submits that none of the above-cited references, alone or in combination, teaches or even suggests (1) a database of power profiles or (2) the comparison of an output of an electrically powered device with the power profiles. These power profiles may be formed as a database according to one embodiment of the invention.

More specifically, on page 2, paragraph 2 of the Final Office Action, it is alleged that that Janku teaches a controller that includes “a database of power profiles of the device.”<sup>14</sup> Appellant respectfully disagrees. Column 2, lines 10-18 of Janku describes the initiation of desired services and their billing in response to receipt of a credit card acceptance from a distant hub.<sup>15</sup> Until receipt of the credit card acceptance, the keyboard for a terminal is locked and hidden.<sup>16</sup> Moreover, column 2, line 47 to column 3, line 6 of Janku describes credit card authentication and functions of the video monitor (31) as well as selection of menu items upon depression of keys (33) of the stand-alone communications terminal (11). Such teachings have no relationship with power profiles or the comparison of power profiles to an output of an electrically powered device. Thus, the §103(a) rejection of claim 14 and those claims dependent thereon is improper.

Additionally, on page 6 (paragraph 12) of the Office Action, it is alleged that that Ozawa teaches comparing “the output to a database of operating profiles.”<sup>17</sup> Such teaching is allegedly accomplished by the terminal adaptor “ADP” (6) implemented within a facsimile (7) and including regular and abnormal operating profiles. “During regular operating profiles the ADP receives instructions from the MCP via the VRU to print out the charges incur from a facsimile transmission. During abnormal operations the ADP utilizes controller, 61, to control a communication section, 62, charge management section, 63, error management section, 64, and record section 65.”<sup>18</sup> Appellant respectfully disagrees with these allegations.

<sup>14</sup> See Janku at column 2, lines 10-18; at column 2, line 47 – column 3, line 6.

<sup>15</sup> See Janku at column 2, lines 11-18.

<sup>16</sup> See Janku at column 2, lines 8-11.

<sup>17</sup> See Ozawa at Figure 1, store device (2) and terminal adaptor “ADP” (6).

<sup>18</sup> See Ozawa at column 5, line 47 – column 6, line 4.

In contrast to these allegations, which are set forth on page 6 of the Final Office Action, Ozawa does not describe or even suggest a database of *power profiles* nor the comparison of an output of the electrically powered device to power profiles. Appellant concedes that Ozawa describes an error management section (64) of the ADP (6) employing processes for power supply interruption and recording paper exhaustion, which apparently are considered by the Examiner to be “operating profiles”. However, it is impermissible hindsight reconstruction by the Examiner to consider these operating profiles as being equivalent to *power profiles* as claimed.<sup>19</sup>

Clearly, the power supply interruption and recording paper exhaustion processes supported by the error management section (64) do not involve any measure and comparison of power utilization. Instead, it is conceivable that these processes may simply detect signals from hardware sensors (e.g., a pull-up resistor to activate a signal with the loss of power, a sensor in close proximity to a paper tray to indicate a lack of paper, etc.). This offers no suggestion of power profiles as notably set forth in independent claims 13, 29 and 30 as well as dependent claim 25.

In light of the foregoing, Appellant respectfully submits that a *prima facie* case of obviousness is not supported by the combined teachings of Ozawa and Greene and/or Janku. It is respectfully requested that the Board overturn the Examiner's rejection of claims 13-21, 23-25, 29-31, 33-37 and 39-40 and hold these claims to be allowable.

B. CLAIMS 26, 27, 32 and 38 ARE ALLOWABLE

Claims 26, 27, 32 and 38 were rejected under 35 USC § 103(a) as being unpatentable over Ozawa in view of Greene. Appellant respectfully disagrees with this rejection and submits that the Examiner has not presented a *prima facie* case of obviousness.

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<sup>19</sup> Emphasis added.

As previously stated, when evaluating a claim for determining obviousness, all limitations of the claim must be evaluated.<sup>20</sup> Appellant respectfully submits that neither Ozawa nor Greene, alone or in combination teach or even suggest (1) a database of power profiles, (2) the comparison of an output of an electrically powered device with the power profiles, or (3) the power (usage) profiles being a function of amperage and time. With respect to the first and second grounds for traverse (1,2) noted above, Appellant incorporates the arguments set forth in Section A.

With respect to the third ground for traverse, the Final Office Action alleges that Ozawa teaches the calculation of the number of hours/minutes the facsimile was in service, and thus, must keep track when power was supplied/utilized to/ by the facsimile.<sup>21</sup> Appellant respectfully disagrees that such teachings render the claimed invention unpatentable. The mere act of monitoring when power is supplied is not equivalent to the act of comparing *power profiles*. These power profiles are configured as a function of amperage and time as explicitly set forth in each of the above-identified claims.

In light of the foregoing, Appellant respectfully submits that a *prima facie* case of obviousness is not established. It is respectfully requested that the Board overturn the Examiner's rejection of claims 26, 27, 32 and 38, and hold that these claims are allowable.

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<sup>20</sup> See *In re Fine*, 873, F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

<sup>21</sup> See Final Office Action, page 6, paragraph 13.

C. CONCLUSION

In summary, a *prima facie* case of obviousness is not supported by the combination of Janku, Ozawa and Greene as well as the combination of Ozawa and Greene. It is respectfully requested that the Board overturn the Examiner's rejection of all pending claims, and hold that the claims are not rendered obvious by the cited references.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP



WILLIAM W. SCHAAAL  
Reg. No. 39,018

Dated: February 26, 2004

12400 Wilshire Blvd., 7th Floor  
Los Angeles, CA 90025-1026  
(714) 557-3800

IX. APPENDIX

The claims of the present application which are involved in this appeal are as follows:

1-12. (Cancelled.)

13. (Previously Presented): The apparatus of claim 14 further comprising a switching device coupled between the electrically powered device and a power source, said switching device to control power to the device, responsive to the control signals.

14. (Previously Presented): An apparatus to monitor usage of an electrically powered device, comprising:

a circuit coupled to the device to provide a power output of the device;

an analog to digital converter coupled to receive the power output and convert the same to digital form; and

a controller to receive a user input, process the user input by establishing communication with a remotely located device to request approval of a financial transaction, and generate control signals in response to receiving approval, the controller includes a database of power profiles of the device and receives the digital form of the power output, compares the digital form of the power output to the power profiles, and monitors the operation of the electrically powered device by suspending a charge for usage of the device if the digital form of the power output indicates a halt condition.

15. (Original): The apparatus of claim 14 wherein the database of power profiles includes normal operation power profiles, idle operation power profiles, and halt condition power profiles.

16. (Original): The apparatus of claim 14 wherein the controller continues to suspend charging for usage of the device as long as the device is in halt condition.

17. (Original): The apparatus of claim 13 wherein the switching device is a relay.

18. (Previously Presented): The apparatus of claim 14 wherein the circuit is a current to voltage converter.

19. (Previously Presented): The apparatus of claim 14 wherein the electrically powered device is a copier.

20. (Previously Presented): The apparatus of claim 14, wherein the electrically powered device is a laser printer.

21. (Previously Presented): The apparatus of claim 14, wherein the circuit is an ammeter.

22-24. (Cancelled.)

25. (Currently Amended):

A method comprising:

monitoring an output of an electrically powered device; and  
comparing the output to a database of operating profiles for the electrically powered device to detect an abnormal condition and to adjust billing charges when the electrically powered device is in the abnormal condition, the database of operating profiles includes a plurality of power usage profiles being regular operating power profiles and abnormal operating power profiles, each abnormal operating power profile to denote an abnormal condition.

26. (Previously Presented): The method of claim 25, wherein each power usage profile is a function of amperage and time.

27. (Previously Presented): A method comprising:  
monitoring an output of an electrically powered device; and  
comparing the output to a database of operating profiles including a plurality of power usage profiles, each power usage profile being a function of amperage and time, for the

electrically powered device to detect an abnormal condition and to adjust billing charges when the electrically powered device is experiencing the abnormal condition being a paper jam.

28. (Currently Amended): The method of claim 25, wherein the first condition is a catastrophic condition.

29. (Previously Presented): A software module embodied for execution by a controller, the software module comprising:

software to monitor an output of an electrically powered device; and

software to compare the output to a plurality of power usage profiles for the electrically powered device to detect a first condition and to adjust billing charges when the electrically powered device is experiencing the first condition being a paper jam.

30. (Previously Presented): A software module embodied for execution by a controller, the software module comprising:

software to monitor an output of an electrically powered device; and

software to compare the output to a plurality of power usage profiles for the electrically powered device to detect a first condition and to adjust billing charges when the electrically powered device is in the first condition, the electrically powered device is placed in the first condition in response to an abnormal operating condition.

31. (Previously Presented): The software module of claim 40, wherein the abnormal condition is a paper jam.

32. (Previously Presented): The software module of claim 29, wherein each power usage profile is a function of amperage and time.

33. (Previously Presented): The software module of claim 30 further comprising software to record the plurality of power usage profiles.

34. (Previously Presented): The software module of claim 29 further comprising a user interface software to enable programmability of conditions to adjust billing charges for usage of the electrically powered device including the first condition.

35. (Previously Presented): The software module of claim 29, wherein the electrically powered device is a printer.

36. (Previously Presented): The software module of claim 30, wherein the electrically powered device is an appliance.

37. (Previously Presented): The software module of claim 30 further comprising software to record the plurality of power usage profiles.

38. (Previously Presented): The software module of claim 30, wherein each power usage profile is a function of amperage and time.

39. (Previously Presented): The software module of claim 30 further comprising a user interface software to enable programmability of conditions to adjust billing charges for usage of the electrically powered device including the first condition.

40. (Previously Presented): The software module of claim 30, wherein the electrically powered device is a printer.